

June 8, 2015

RECEIVED

By Alameda County Environmental Health 3:41 pm, Jun 24, 2015

Karel Detterman
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

**RE: Groundwater Monitoring Well Decommissioning Report
Former Sears Auto Center #1058B
2600 Telegraph Avenue
Oakland, California 94612
Fuel Leak Case No. RO0000480
GeoTracker Global IDT06019793739**

Dear Ms. Detterman:

AECOM (formerly known as URS Corporation), on behalf of the Sears Holdings Management Corporation (Sears), has prepared this letter report to summarize the well decommissioning activities for the former Sears Auto Center at 2600 Telegraph Avenue in Oakland, California (Figure 1). AECOM decommissioned eight onsite groundwater monitoring wells (MW-1 through MW-8), one offsite groundwater monitoring well (MW-9), and one extraction well (EW-1). The destroyed well locations are shown on Figure 2. Well construction details are summarized in Table 1.

Well Decommissioning Activities

On March 10 and 11, 2015, eight onsite groundwater monitoring wells (MW-1 through MW-8) and one onsite extraction well (EW-1) were destroyed. On May 7, 2015, one offsite groundwater monitoring well (MW-9) located in 26th Street was destroyed. Prior to conducting the fieldwork, a permit for the decommissioning of the ten wells was obtained from the Alameda County Public Works Agency (ACPWA). A copy of the ACPWA Water Resources Well Permit is included in Attachment A. The ACPWA was notified at least 5 days prior of the field work as required by the permit. A representative from the ACPWA visited the site during the well decommissioning activities and verbally approved the methodology.

In conformance with the ACPWA permit requirements, the well decommissioning for Wells MW-1 through MW-8 and EW-1 consisted of pressure grouting/sealing of the well using a 95 percent neat cement and 5 percent bentonite clay mixture. The well sealing material was introduced into each well using a tremie pipe. Once the well was filled to the top with grout (and had spilled over the top of the casing), then pressure was applied with the grout pump at 25 psi for at least 5 minutes to force the sealing material through the well screen and into the void spaces of the filter pack. Additional grout was added as necessary. Following the completion of grouting, the well boxes were removed with a jack hammer and the debris was contained in 55-gallon drums. The well locations were topped with concrete.

For offsite Well MW-9, an excavation permit and an obstruction permit were obtained from the City of Oakland in order to close and drill within a lane on 26th Street. Copies of the permits are included in Attachment A. Traffic control was utilized per a City of Oakland-approved traffic control plan. Per the well destruction permit, Well MW-9 was "over-drilled" to approximately 5 feet below ground surface using an air knife followed by pressure grouting as described above.

Based on the well construction details, AECOM calculated the volume of the well casing and pore space of the well packing material to determine the amount of grout mixture that would be needed. The sealing material calculations are provided in Attachment B, and summarized in Table 1. During each well destruction, the volume of sealing material used was documented to ensure that the amount generally matched the calculated volume of the well casing and the pore space of the well packing material. As indicated in Table 1, the approximate seal material volume used closely matched/exceeded the calculated volume for each well.

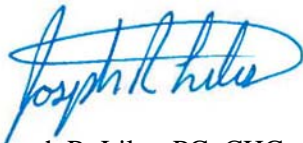
The vault boxes and over-drill wastes generated from the well destruction activities were contained in 55-gallon drums. The wastes were transported offsite on June 4, 2015 for disposal as non-hazardous waste. A copy of the non-hazardous waste manifest is included in Attachment C.

Closing

We appreciate the Alameda County Environmental Health's regulatory oversight support on this project. Please feel free to contact me at (714) 567-2400 with any questions or comments.

Sincerely,

URS Corporation



Joseph R. Liles, PG, CHG
Principal Geologist

List of Attachments:

Table 1	Well Destruction Grout Volume Summary
Figure 1	Vicinity Map
Figure 2	Plot Plan
Attachment A	Permits
Attachment B	Grout Volume Calculations
Attachment C	Waste Disposal Documentation

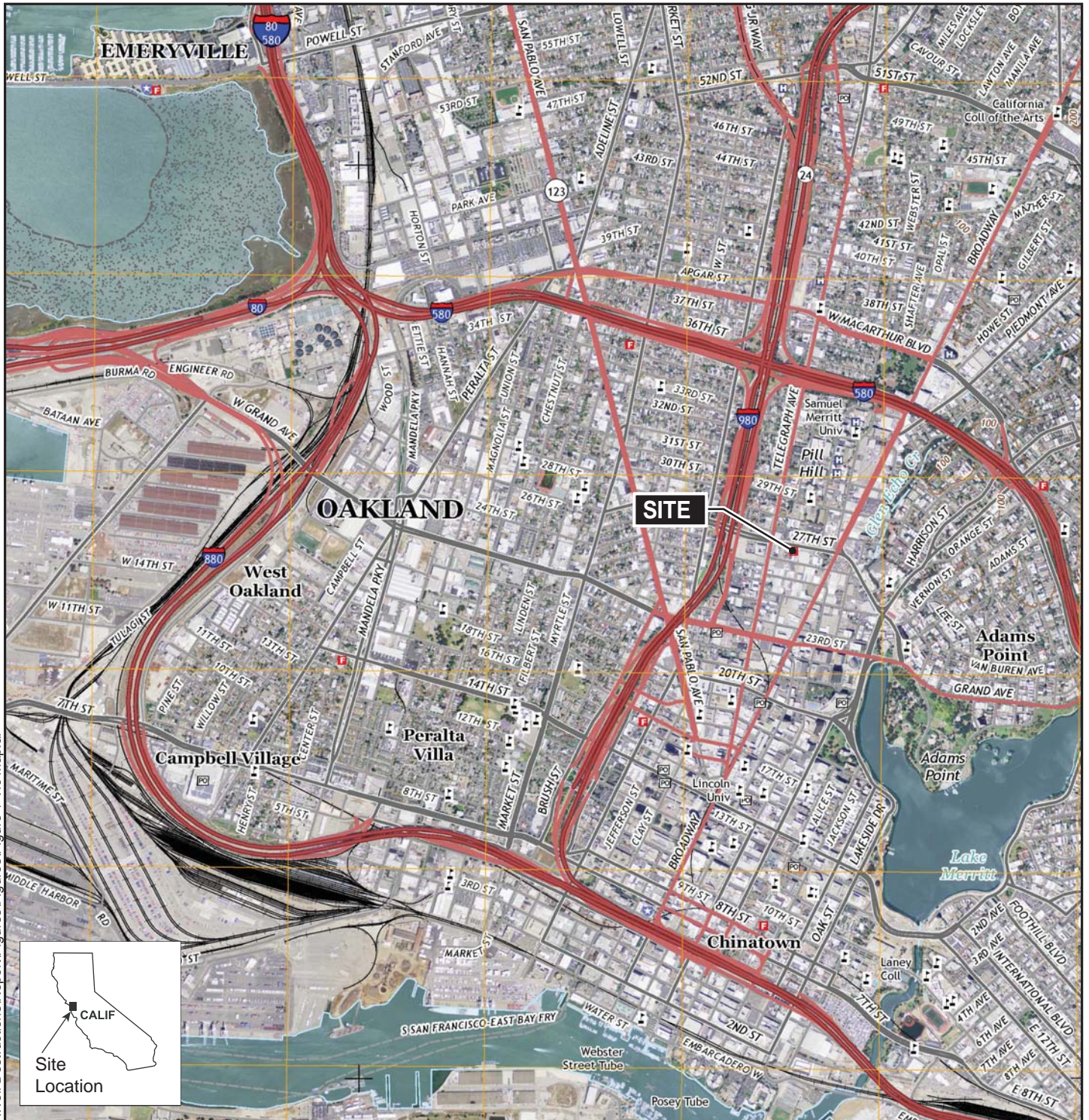
cc:

Mr. Michael Olsen, Sears Holdings Management Corporation
Mr. Michael Couvreur, Sears Holdings Management Corporation
Ms. Suk Hee Yoo, 2600 Telegraph Property LLC

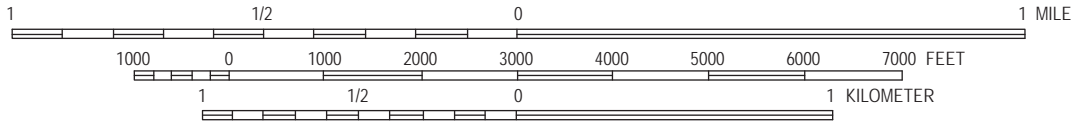
TABLE 1
WELL DESTRUCTION GROUT VOLUME SUMMARY
Former Sears Auto Center
2600 Telegraph Avenue
Oakland, California

Well Name	Well Construction Information ⁽¹⁾					Calculated Grout Volume ⁽²⁾ (gallons)	Actual Grout Volume (gallons)	Surface Condition	Destruction Method
	Total Depth (feet bgs)	Measured Depth (feet bgs)	Screen Interval (feet)	Casing Diameter (inches)	Borehole Diameter (inches)				
EW-1	22.7	22.68	10 to 23	4	10	25	23	Asphalt	Backfill casing with cement bentonite grout using tremie pipe; Pressure grout 25 psi for at least 5 minutes; Complete backfill with cement bentonite grout; Remove well box and top with concrete
MW-01	22	22.02	7 to 22	2	10.5	18	21.5	Apshalt	
MW-02	22	22.16	7 to 22	2	10.5	18	22	Apshalt	
MW-03	25	24.86	10 to 25	2	10.5	19	24	Apshalt	
MW-04	23	22.72	8 to 23	2	10.5	18.5	23	Apshalt	
MW-05	25	24.84	10 to 25	2	10.5	19	24	Apshalt	
MW-06	22	22.77	7 to 22	2	8	11.5	12	Apshalt	
MW-07	22	21.92	7 to 22	2	2	11.5	12.5	Apshalt	
MW-08	22	22.68	7 to 22	2	2	11.5	13	Apshalt	
MW-09	20	19.64	7 to 20	2	2	10	16	Apshalt	Backfill casing with cement bentonite grout using tremie pipe; Pressure grout 25 psi for at least 5 minutes; Complete backfill with cement bentonite grout; Remove well box, overdrill top 5 feet, top with concrete, and asphalt hot patch to match street construction

Notes:
1. Well construction information based on field measurements and well construction logs.
2. Grout volumes include sand pack porespace and well casing volume. See Attachment B.
bgs = below ground surface



SCALE 1:24,000



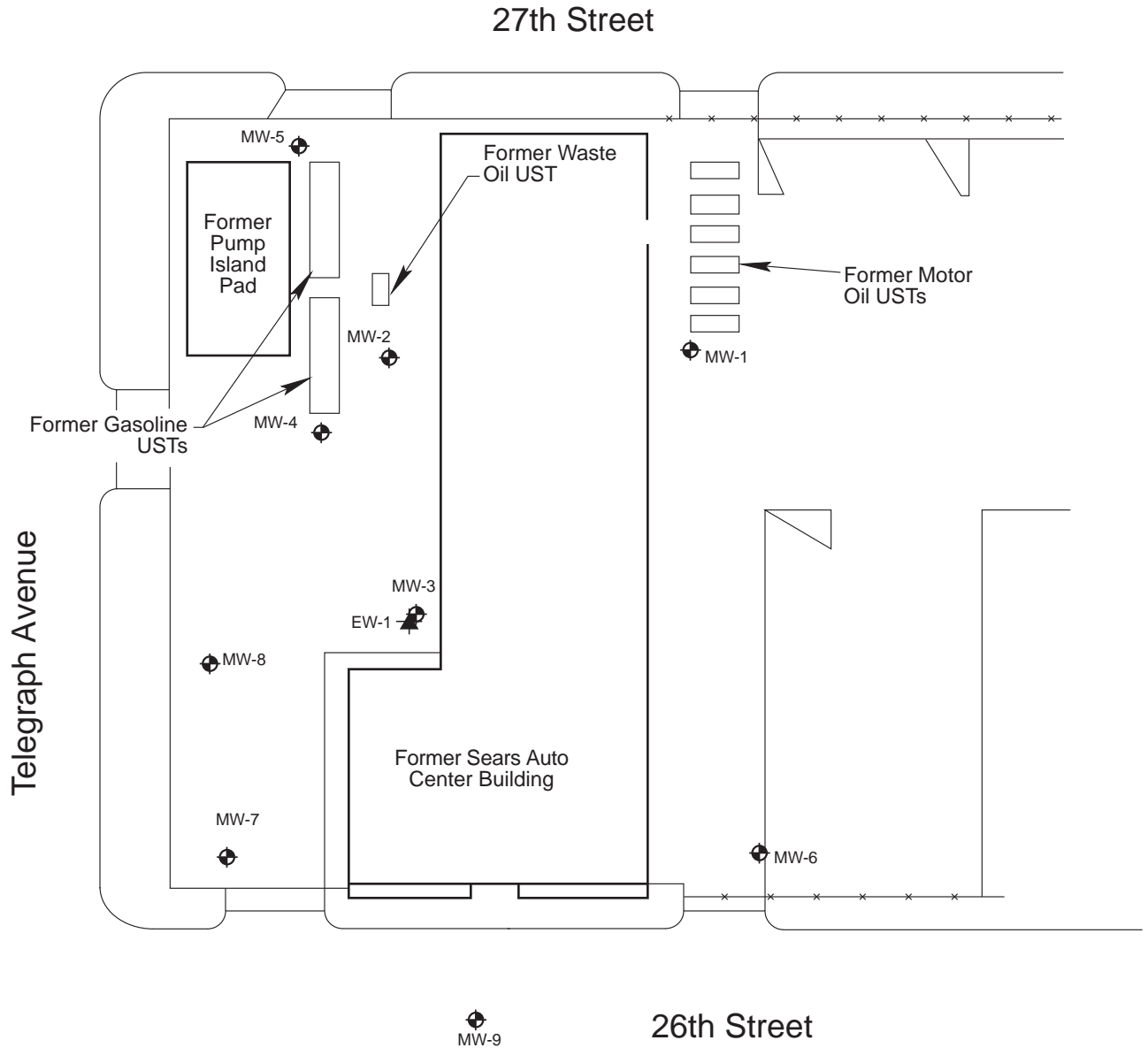
REFERENCE:
 Portion of 7.5-minute Series (Topographic) Map
 United States Department of the Interior Geological Survey
 Oakland, California Quadrangle 2012.

VICINITY MAP




G:\128\Sears_128\Oakland\2600 Telegraph Ave\2014\Well Destructions\Report\Figures\Figure 1 Vic Map.ap

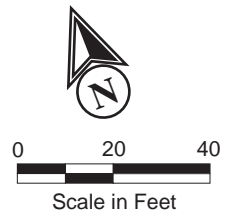
	Project No.: 60388101	Date: JUNE 2015	Project: FORMER SEARS RETAIL CENTER #1058B 2600 TELEGRAPH AVE, OAKLAND, CA	Figure 1
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G:\128\Sears_128\Oakland\2600 Telegraph Ave\2014\Well Destructions\Report\Figures\Figure 2 Plot Plan.ai



EXPLANATION:

-  MW-8 DESTROYED GROUNDWATER MONITORING WELL LOCATION
-  EW-1 DESTROYED GROUNDWATER EXTRACTION WELL LOCATION
-  CHAIN LINK FENCE



PLOT PLAN



Project No.: 60388101

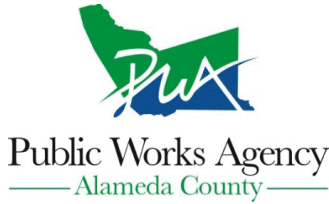
Date: JUNE 2015

Project: FORMER SEARS RETAIL CENTER #1058B
2600 TELEGRAPH AVE, OAKLAND, CA

Figure 2

ATTACHMENT A
PERMITS

Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 02/05/2015 By jamesy

Permit Numbers: W2015-0095 to W2015-0104
Permits Valid from 02/17/2015 to 02/18/2015

Application Id: 1422058420515
Site Location: 2600 Telegraph Avenue
Project Start Date: 02/17/2015
Assigned Inspector: Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org

City of Project Site:Oakland

Completion Date:02/18/2015

Applicant: AECOM - Michael Haux
2020 East First Street, Suite 400, Santa Ana, CA 92705
Property Owner: Sukee Yoo (2600 Telegraph Property LLC)
238 Sheridan Road, Oakland, CA 94618
Client: Bruce Kaye (Sears Roebuck & Co)
3333 Beverly Road, Hoffman Estates, IL 60179

Phone: 714-648-2896

Phone: --

Phone: --

	Total Due:	\$3970.00
Receipt Number: WR2015-0052	Total Amount Paid:	\$3970.00
Payer Name : URS-AECOM	Paid By: CHECK	PAID IN FULL

Works Requesting Permits:

Well Destruction-Monitoring - 10 Wells

Driller: National EWP, Inc. - Lic #: 953646 - Method: press

Work Total: \$3970.00

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth	State Well #	Orig. Permit #	DWR #
W2015-0095	02/05/2015	05/18/2015	EW-1	10.00 in.	4.00 in.	6.00 ft	22.70 ft	1S/4W26G	96399	Logs Only
W2015-0096	02/05/2015	05/18/2015	MW-1	10.50 in.	2.00 in.	3.50 ft	20.00 ft	1S/4W26G	92601	Logs Only
W2015-0097	02/05/2015	05/18/2015	MW-2	10.50 in.	2.00 in.	3.50 ft	22.00 ft	1S/4W26G	92601	Logs Only
W2015-0098	02/05/2015	05/18/2015	MW-3	10.50 in.	2.00 in.	6.00 ft	25.00 ft	1S/4W26G	92601	Logs Only
W2015-0099	02/05/2015	05/18/2015	MW-4	10.50 in.	2.00 in.	4.00 ft	23.00 ft	1S/4W26G	92601	Logs Only
W2015-0100	02/05/2015	05/18/2015	MW-5	10.50 in.	2.00 in.	6.00 ft	25.00 ft	1S/4W26G	92601	Logs Only
W2015-0101	02/05/2015	05/18/2015	MW-6	8.00 in.	2.00 in.	5.00 ft	22.00 ft	1S/4W26G	93668	Logs Only
W2015-0102	02/05/2015	05/18/2015	MW-7	8.00 in.	2.00 in.	5.00 ft	22.00 ft	1S/4W26G	93668	Logs Only
W2015-0103	02/05/2015	05/18/2015	MW-8	8.00 in.	2.00 in.	5.00 ft	22.00 ft	1S/4W26G	93668	Logs Only
W2015-0104	02/05/2015	05/18/2015	MW-9	8.00 in.	2.00 in.	5.00 ft	20.00 ft	1S/4W26G	No Records	Logs Only

Specific Work Permit Conditions

1. Drilling Permit(s) can be voided/ cancelled only in writing. It is the applicant's responsibility to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.

2. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground

Alameda County Public Works Agency - Water Resources Well Permit

Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

3. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Include permit number and site map.
 4. Applicant shall submit the copies of the approved encroachment permit to this office within 10 days.
 5. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost and liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.
 6. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
 7. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.
 8. Remove the Christy box or similar structure. Destroy well MW-9 by overdrilling the upper 5 ft. BGS & Tremie Grouting with Cement. After the seal has set, backfill the remaining hole with concrete or compacted material to match existing.
 9. Remove the Christy box or similar structure. Destroy all other wells by grouting neat cement with a tremie pipe or pressure grouting (25 psi for 5min.) to the bottom of the well and by filling with neat cement to three (3-5) feet below surface grade. Allow the sealing material to spill over the top of the casing to fill any annular space between casing and soil. After the seal has set, backfill the remaining hole with concrete or compacted material to match existing conditions.
 10. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
-



CITY OF OAKLAND

250 FRANK H. OGAWA PLAZA ▪ 2ND FLOOR ▪ OAKLAND, CA 94612

Planning and Building Department
www.oaklandnet.com

PH: 510-238-3891
FAX: 510-238-2263
TDD: 510-238-3254

Permit No: 9 X1500425 Excavation

Filed Date: 2/27/2015

Job Site: 2600 TELEGRAPH AVE

Schedule Inspection by calling: 510-238-3444

Parcel No: 009 068401100

For SL; X; and CGS permits see **SPECIAL NOTE** below

District:

Project Description: Excavate to remove monitoring well MW-9 on 26th Street.

Contact: Jacob Wilcox, 510 394-2080.

APPLICATION & FEE PAID 6-3-94 RECORDED 10-9-96 SEARS, ROEBUCK & CO SUBMITTED A PERFORMANCE BOND OF \$3,000 IN LIEU OF GRANT DEED. ORIG. BOND TO JOAN 7-26-96

Related Permits: ENMI96109

	<u>Name</u>	<u>Applicant</u>	<u>Address</u>	<u>Phone</u>	<u>License #</u>
Owner:	SEARS, ROEBUCK & CO.			8472865530	
Contractor-	NATIONAL E W P INC	X	630 LINCOLN AVENUE WOODLAND, CA	(530) 668-4080	953646
Employee:					

PERMIT DETAILS: Building/Public Infrastructure/Excavation/NA

General Information

Excavation Type: Private Party

Special Paving Detail Required:

Tree Removal Involved:

Date Street Last Resurfaced:

Holiday Restriction (Nov 1 - Jan 1):

Worker's Compensation Company Name:

Limited Operation Area (7AM-9AM) And (4PM-6PM):

Worker's Compensation Policy #:

Key Dates

Approximate Start Date:

Approximate End Date:

TOTAL FEES TO BE PAID AT FILING: \$436.05

Application Fee	\$71.00	Excavation - Private Party Type	\$309.00	Records Management Fee	\$36.10
Technology Enhancement Fee	\$19.95				

Plans Checked By _____ Date _____

Permit Issued By 9 _____ Date 2.27

Finalized By _____ Date _____

SPECIAL NOTE

- For SL; X; and CGS permits Call PWA INSPECTION prior to start: 510-238-3651 or visit 4th FLOOR.
- SL and X permits valid 90 days; CGS permits valid 30 days



Permit No: X1500425

Parcel No: 009 068401100

Job Site: 2600 TELEGRAPH AVE

Page 2 of 2

LICENSED CONTRACTOR'S DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

CONSTRUCTION LENDING AGENCY DECLARATION

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Section 8172, Civil Code).

Lender's Name _____

Branch Designation _____

Lender's Address _____

WORKERS' COMPENSATION DECLARATION

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS (\$100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

I hereby affirm under penalty of perjury one of the following declarations:

I have and will maintain a certificate of consent to self-insure for workers' compensation, issued by the Director of Industrial Relations as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

I certify that, in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that, if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

HAZARDOUS MATERIALS DECLARATION

I hereby affirm that the intended occupancy WILL WILL NOT use, handle or store any hazardous, or acutely hazardous, materials. (Checking "WILL" acknowledges that Sections 25505, 25533, and 25534 of the Health and Safety Code, as well as filing instructions were made available to you).

I HEREBY CERTIFY THE FOLLOWING: That I have read this document; that the above information is correct; and that I have truthfully affirmed all applicable declarations contained in this document. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes.

I hereby agree to save, defend, indemnify and keep harmless the City of Oakland and its officials, officers, employees, representatives, agents, and volunteers from all actions, claims, demands, litigation, or proceedings, including those for attorneys' fees, against the City in consequence of the granting of this permit or from the use or occupancy of the public right-of-way, public easement, or any sidewalk, street or sub-sidewalk or otherwise by virtue thereof, and will in all things strictly comply with the conditions under which this permit is granted I further certify that I am the owner of the property involved in this permit or that I am fully authorized by the owner to access the property and perform the work authorized by this permit.

Name _____

Signature _____

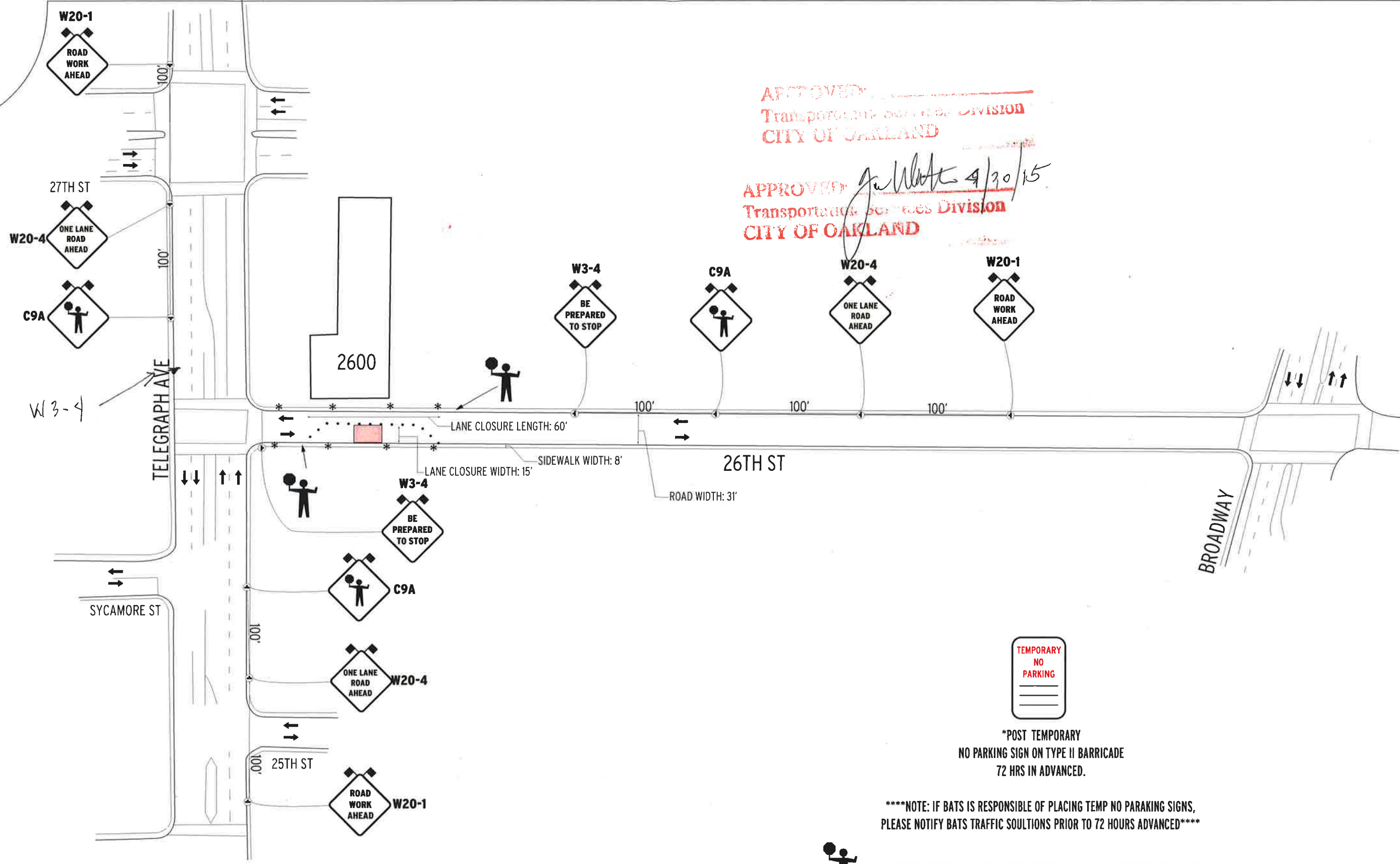
Contractor, or Contractor's Agent Date

NOTICE: No activities related to the approved work, including storage/use of materials, is allowed within the public right-of-way without an encroachment permit. Dust control measures shall be used throughout all phases of construction.



APPROVED: _____
 Transportation Services Division
 CITY OF OAKLAND

APPROVED: *John White* 4/30/15
 Transportation Services Division
 CITY OF OAKLAND



*POST TEMPORARY
 NO PARKING SIGN ON TYPE II BARRICADE
 72 HRS IN ADVANCED.

****NOTE: IF BATS IS RESPONSIBLE OF PLACING TEMP NO PARKING SIGNS,
 PLEASE NOTIFY BATS TRAFFIC SOLUTIONS PRIOR TO 72 HOURS ADVANCED****

***** ADDITIONAL FLAGGERS MAY BE REQUIRED *****

LEGEND	
	W20-1 - ROAD WORK AHEAD
	W20-4 - ONE LANE ROAD AHEAD
	C9A - FLAGGER
	W3-4 - BE PREPARED TO STOP
	28" CONE
	SIGN
	WORK AREA
	FLAGGER

NOTES:
 All traffic control shall conform with MUTCD and/or Caltrans Standards.
 Driveways shall be monitored and maintained.
 Traffic Control Workers shall have Type II vests, work shoes, and hard hats.
 Distance between sign and work area 100ft.
 Taper distance 125ft.
 Spacing of cones 25ft.

LOCATION:
 2600 TELEGRAPH AVE
 OAKLAND

JOB#
 29863494.14002

DATE:
 3-12VV-15
SHEET:
 1/1

REQUESTED BY:
 MICHAEL HAUX
 URS
 714-648-2896

BAY AREA TRAFFIC SOLUTIONS
 Drawn By: Raul Vera, Jr.
 CSLB# 917034
 44800 Industrial Drive
 Fremont, CA 94538
 Office: 510-657-2543
 Fax: 510-657-2544
 AFTER HOURS EMERGENCY
 510-299-5666
 WWW.BATSTRAFFICSOLUTIONS.COM

SPECIAL PROVISION 7-10.1 TRAFFIC REQUIREMENTS

Project Name:
 Project Number: TSD-15-0077
 Reviewed By: JWatson
 Date: 4/30/2015
 Permit good from 5/7/2015
 to 5/7/2015

ADD NEW SUBSECTION TO READ:
SP 7-10.1.4 Vehicular Traffic

Attention is directed to Section 7-10. Public Convenience and Safety, of the City of Oakland Standard Specification for Public Works Construction, 2006 Edition (Include this paragraph for p-jobs, excavation permits or obstruction permits).

The Contractor shall conduct its work in such a manner as to provide public convenience and safety and according to the provisions in this subsection. The provisions shall not be modified or altered without written approval from the Engineer.

Standard traffic control devices shall be placed at the construction zone according to the latest edition of the Work Area Traffic Control Handbook or Manual on Uniform Traffic Control Devices (MUTCD), Chapter 6 – "Traffic Controls for Construction and Maintenance Work Zone," or as directed by the Engineer.

All trenches and excavations in any public street or roadway shall be back filled and opened to traffic, or covered with suitable steel plates securely placed and opened to traffic at all times except during actual construction operations unless otherwise permitted by the Engineer.

Each section of work shall be completed or temporarily paved and open to traffic in not more than 5 days after commencing work unless otherwise permitted in writing by the Engineer.
 at all times for pedestrian use. Pedestrian barricades, shelter, and detour signs per Caltrans standards may be required.

Where construction encroaches into the sidewalk area, a minimum of 5 ½ feet of unobstructed sidewalk shall be maintained. The contractor shall conduct its operation in such a manner as to leave the following traffic lanes unobstructed and in a condition satisfactory for vehicular travel during the Obstruction Period. At all times traffic lanes will be restricted and reopened to travel. Emergency access shall be provided at all times.

Street Name Limits	Obstruction Period	North Bound	South Bound	East Bound	West Bound
26 th Street between Telegraph Ave and Broadway	Mon. – Fri. 8AM – 4PM	N/A	N/A	One 12' lane open minimum	N/A

The Contractor Shall Also include all check item:

1. Design a construction traffic control plan and submit (2) copies to the Engineer for approval prior to starting any work.
2. Replace all signs, pavement markings, and traffic detector loops damaged or removed due to construction within 3 days of completion of work or the final pavement lift.
3. Provide advance notice to Oakland Police at (510) 777-3333 (24-hrs) and Oakland Fire at (510) 238-3331 (2-rhs) when a single lane of traffic or less is provided on any street.
4. Provide 72-hour advance notice to AC Transit at (510) 891-4909 when affecting a bus stop.
5. For Caltrans roadways, ramps, or maintained facilities, the Contractor shall obtain appropriate permits and notify the Traffic Management Center 24 hours in advance of any work.
6. Flagger control is required. Certified Flagger is required.
7. Pedestrian walkway by K-rail, Canopy or Plywood is required. (See detour plan)
8. Pedestrian traffic shall be maintained and guided through the project at all times.
9. Provide advance notice to Business and Residence within 72-hours.
10. Allow all traffic movement at intersection.

Nothing specified herein shall prohibit emergency work and/or repair necessary to ensure public health and safety.

ATTACHMENT B
GROUT VOLUME CALCULATIONS

Pressure Grout Well Abandonment for EW-1 Slurry Calculations

Insert Sandpack Height in Inches	176	14.7 Feet
Insert Sandpack radius in Inches	5	5.0 Inches
Insert Total Well Height in Inches	272	22.7 Feet
Insert Casing Height in Sandpack	176	14.7 Feet
Insert Casing Radius in Inches	2	2.0 Inches
Insert Assumed Sandpack Pore Space (usually 25-35%)	20.00%	

Sandpack
 $\text{volume} = \pi * r^2 * h$

pi	r^2	height (inches)
3.1415927	25	176

13823.008 cubic inches
59.83986 gallons

Casing in Sandpack

pi	r^2	height (inches)
3.1415927	4	176

2211.6812 cubic inches
9.5743776 gallons

Sandpack - Casing = Sandpack total volume
50.265482 Sandpack Volume Gallons

Sand Pore Space 20.00%
Sandpack vol*Porespace percentage
10.053096 gallons of sandpack pore space

Sandpack Pore Space Volume 10.053096 Gallons

Well Casing Volume

Casing in Well

pi	r^2	height (inches)
3.1415927	4	272

3418.0528 cubic inches
14.796765 gallons

14.796765

Total grout/cement slurry required for abandonment

Sandpack Pore Space+Well Casing Volume= Total Grout Required
24.849862 Gallons

24.849862 Gallons Required to Fill Well Casing and Pore Space
3.3224265 Cubic Feet

Pressure Grout Well Destruction for MW-1& 2 Slurry Calculations

Insert Sandpack Height in Inches	201	16.8 Feet
Insert Sandpack radius in Inches	5.25	5.3 Inches
Insert Total Well Height in Inches	264	22.0 Feet
Insert Casing Height in Sandpack	201	16.8 Feet
Insert Casing Radius in Inches	1	1.0 Inches
Insert Assumed Sandpack Pore Space (usually 25-35%)	20.00%	

Sandpack
 $\text{volume} = \pi * r^2 * h$

pi	r^2	height (inches)
3.1415927	27.5625	201

17404.62 cubic inches
75.344674 gallons

Casing in Sandpack

pi	r^2	height (inches)
3.1415927	1	201

631.46012 cubic inches
2.7335936 gallons

Sandpack - Casing = Sandpack total volume
72.61108 Sandpack Volume Gallons

Sand Pore Space 20.00%
Sandpack vol*Porespace percentage
14.522216 gallons of sandpack pore space

Sandpack Pore Space Volume 14.522216 Gallons

Well Casing Volume

Casing in Well

pi	r^2	height (inches)
3.1415927	1	264

829.38046 cubic inches
3.5903916 gallons

3.5903916

Total grout/cement slurry required for abandonment

Sandpack Pore Space+Well Casing Volume= Total Grout Required
18.112608 Gallons

18.112608 Gallons Required to Fill Well Casing and Pore Space
2.4216556 Cubic Feet

Pressure Grout Well Destruction for MW-3 & 5 Slurry Calculations

Insert Sandpack Height in Inches	204	17.0 Feet
Insert Sandpack radius in Inches	5.25	5.3 Inches
Insert Total Well Height in Inches	300	25.0 Feet
Insert Casing Height in Sandpack	204	17.0 Feet
Insert Casing Radius in Inches	1	1.0 Inches
Insert Assumed Sandpack Pore Space (usually 25-35%)	20.00%	

Sandpack
 $\text{volume} = \pi \cdot r^2 \cdot h$

pi	r^2	height (inches)
3.1415927	27.5625	204

17664.39 cubic inches
76.469221 gallons

Casing in Sandpack

pi	r^2	height (inches)
3.1415927	1	204

640.8849 cubic inches
2.7743935 gallons

Sandpack - Casing = Sandpack total volume
73.694828 Sandpack Volume Gallons

Sand Pore Space 20.00%
Sandpack vol*Porespace percentage
14.738966 gallons of sandpack pore space

Sandpack Pore Space Volume 14.738966 Gallons

Well Casing Volume

Casing in Well

pi	r^2	height (inches)
3.1415927	1	300

942.4778 cubic inches
4.0799905 gallons

4.0799905

Total grout/cement slurry required for abandonment

Sandpack Pore Space+Well Casing Volume= Total Grout Required
18.818956 Gallons

18.818956 Gallons Required to Fill Well Casing and Pore Space
2.5160944 Cubic Feet

Pressure Grout Well Destruction for MW-4 Slurry Calculations

Insert Sandpack Height in Inches	204	17.0 Feet
Insert Sandpack radius in Inches	5.25	5.3 Inches
Insert Total Well Height in Inches	276	23.0 Feet
Insert Casing Height in Sandpack	204	17.0 Feet
Insert Casing Radius in Inches	1	1.0 Inches
Insert Assumed Sandpack Pore Space (usually 25-35%)	20.00%	

Sandpack
 $\text{volume} = \pi * r^2 * h$

pi	r^2	height (inches)
3.1415927	27.5625	204

17664.39 cubic inches
76.469221 gallons

Casing in Sandpack

pi	r^2	height (inches)
3.1415927	1	204

640.8849 cubic inches
2.7743935 gallons

Sandpack - Casing = Sandpack total volume
73.694828 Sandpack Volume Gallons

Sand Pore Space 20.00%
Sandpack vol*Porespace percentage
14.738966 gallons of sandpack pore space

Sandpack Pore Space Volume 14.738966 Gallons

Well Casing Volume

Casing in Well

pi	r^2	height (inches)
3.1415927	1	276

867.07957 cubic inches
3.7535912 gallons

3.7535912

Total grout/cement slurry required for abandonment

Sandpack Pore Space+Well Casing Volume= Total Grout Required
18.492557 Gallons

18.492557 Gallons Required to Fill Well Casing and Pore Space
2.4724548 Cubic Feet

**Pressure Grout Well Destruction for MW-6,7,8
Slurry Calculations**

Insert Sandpack Height in Inches	192	16.0 Feet
Insert Sandpack radius in Inches	4	4.0 Inches
Insert Total Well Height in Inches	264	22.0 Feet
Insert Casing Height in Sandpack	192	16.0 Feet
Insert Casing Radius in Inches	1	1.0 Inches
Insert Assumed Sandpack Pore Space (usually 25-35%)	20.00%	

Sandpack
 $\text{volume} = \pi * r^2 * h$

pi	r^2	height (inches)
3.1415927	16	192

9650.9726 cubic inches
41.779102 gallons

Casing in Sandpack

pi	r^2	height (inches)
3.1415927	1	192

603.18579 cubic inches
2.6111939 gallons

Sandpack - Casing = Sandpack total volume
39.167908 Sandpack Volume Gallons

Sand Pore Space 20.00%
Sandpack vol*Porespace percentage
7.8335817 gallons of sandpack pore space

Sandpack Pore Space Volume 7.8335817 Gallons

Well Casing Volume

Casing in Well

pi	r^2	height (inches)
3.1415927	1	264

829.38046 cubic inches
3.5903916 gallons

3.5903916

Total grout/cement slurry required for abandonment

Sandpack Pore Space+Well Casing Volume= Total Grout Required
11.423973 Gallons

11.423973 Gallons Required to Fill Well Casing and Pore Space
1.5273852 Cubic Feet

ATTACHMENT C
WASTE DISPOSAL DOCUMENTATION

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number

N/A

2. Page 1 of

1

3. Emergency Response Phone

1-800-424-9300

4. Waste Tracking Number

NH42858-N

5. Generator's Name and Mailing Address

Sears # 1058
2833 Teagarden Ave TELEGRAPH AVE.
Oakland CA 94612

Generator's Site Address (if different than mailing address)

Generator's Phone: 800 577-4557

6. Transporter 1 Company Name

Environmental Logistics, Inc.

U.S. EPA ID Number

CAR000217513

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

Filter Recycling Services, Inc.
180 W. Monte Avenue
Bloomington CA 92316

U.S. EPA ID Number

Facility's Phone: 909 421-2012

CAD982444481

9. Waste Shipping Name and Description

10. Containers

No. Type

11. Total Quantity

12. Unit Wt./Vol.

1. Non-Hazardous Waste Solid (Asphalt, Soil and Concrete Mixture)

006

DM

2400

P

13. Special Handling Instructions and Additional Information

1) Asphalt, Soil and Concrete Mixture - N15060901

WO # 42858-N

↳ 6x55

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name

on behalf of Sears Holdings Corporation
Joe Lasowski

Signature

[Signature]

Month Day Year

06 02 2015

15. International Shipments

Import to U.S.

Export from U.S.

Port of entry/exit:

Date leaving U.S.:

Transporter Signature (for exports only):

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

Alberto Sanchez

Signature

[Signature]

Month Day Year

06 04 15

Transporter 2 Printed/Typed Name

Signature

Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space

Quantity

Type

Residue

Partial Rejection

Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name

Sarah Amick

Signature

[Signature]

Month Day Year

06 06 15